

**Notice of Allowability**

Application No.

10/777,901

Applicant(s)

HULIN ET AL.

Examiner

Art Unit

David C. Reese

3677

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 28 July 2005.
2. ☒ The allowed claim(s) is/are 2, 11, 13, 14, 16, 18-22, 25 and 26.
3. ☒ The drawings filed on 12 February 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                       |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|   | 9. <input type="checkbox"/> Other _____.  |

### **DETAILED ACTION**

This office action is in response to Applicant's amendment filed 7/28/2005.

#### ***Status of Claims***

[1] Claims 2, 11, 13-14, 16, 18-22, 25-26 are allowable in view of the examiner's amendment below.

#### ***Claim Objections***

[2] Applicant has addressed all objections to the Claims in the amendment filed 7/28/2005. Accordingly, all objections to the disclosure have been withdrawn by the Examiner.

#### ***Allowable Subject Matter***

[3] Claims 2, 11, 13-14, 16, 18-22, 25-26 are allowed.

#### ***Examiner's Amendment***

[4] An examiner's amendment to the record appears below. Authorization for this examiner's amendment was given in a telephonic interview with Kien Le from Lowe Hauptman & Berner, LLP on 8/16/2005.

The examiner has amended the application as follows:

#### **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

##### **Listing of Claims:**

1. (canceled)
2. (previously presented) The fastener according to claim 18, being made in a single piece.

3-10. (canceled)

11. (previously presented) The fastener according to claim 18, wherein the head comprises a tongue for manual gripping.

12. (canceled)

13. (previously presented) The fastener of claim 22, wherein said collar has only one said tooth, a remainder of said collar extending circumferentially of said fastener without interruption from one of said cut-outs to another.

14. (previously presented) The fastener of claim 22, wherein said tooth has a material thickness greater than a remainder of said collar.

15. (canceled)

16. (previously presented) The fastener of claim 18, wherein the dimensions of said second enlarged portion in said first and second radial directions are smaller than the respective dimensions of said first enlarged portion in said first and second radial directions; and

the dimensions of said first enlarged portion in said first and second radial directions are smaller than the respective dimensions of said head in said first and second radial directions.

17. (canceled)

18. (currently amended) A fastener, comprising a head and an elongated body extending in an axial direction thereof downwardly from said head;

said elongated body comprising, in said axial direction, a first enlarged portion connected to an underside of said head via a first neck portion having a cylindrical perimeter, and a second

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enlarged portion connected to said first enlarged portion via a second neck portion having a cylindrical perimeter which is smaller than that of the first neck portion, whereby sheet materials having openings can be accommodated around said neck portions between said first enlarged portion and said head and between said first and second enlarged portions;

each of said enlarged portions being rigidly formed with said elongated body so as to not be radially deformable relative thereto and having a ~~greater~~ maximum dimension and a ~~smaller~~ minimum dimension respectively in first and second radial directions perpendicular to said axial direction;

wherein the dimensions of said enlarged portions in said first and second radial directions are not greater than respective dimensions of said head in said first and second radial directions; and

wherein each of said enlarged portions has [[a]] the maximum dimension and [[a]] the minimum dimension respectively in [[said]] the same first and second radial directions which are perpendicular to each other.

19. (previously presented) The fastener of claim 18, wherein each of said enlarged portions includes a central cylindrical portion and at least one lug extending outwardly from said cylindrical portion in said first radial direction to define the maximum dimension of the respective enlarged portion, the cylindrical portions of said enlarged portions being coaxial with one another and with the head which is circular in cross section.

20. (previously presented) The fastener of claim 19, wherein each of said enlarged portions includes two said lugs extending outwardly from two diametrically opposite locations on the respective cylindrical portion to define the maximum dimension of the respective enlarged portion.

21. (currently amended) A fastener, comprising a head and an elongated body extending in an axial direction thereof downwardly from said head;

said elongated body comprising, in said axial direction, a first enlarged portion connected to an underside of said head via a first neck portion, and a second enlarged portion connected to said first enlarged portion via a second neck portion, whereby sheet materials having openings can be

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accommodated around said neck portions between said first enlarged portion and said head and between said first and second enlarged portions;

each of said enlarged portions being rigidly formed with said elongated body so as to not be radially deformable relative thereto and having a maximum dimension and a minimum dimension respectively in first and second radial directions perpendicular to said axial direction;

wherein the dimensions of said enlarged portions in said first and second radial directions are not greater than respective dimensions of said head in said first and second radial directions;

wherein each of said enlarged portions has the maximum dimension and the minimum dimension respectively in the same first and second radial directions which are perpendicular to each other; and

~~The fastener of claim 20,~~ wherein, in the whole elongated body, said second neck portion has smallest dimensions in both said first and second radial directions, thereby defining a weakest point of said elongated body which will be first ruptured upon application of sufficient stress to said elongated body.

22. (currently amended) A fastener, comprising a head and an elongated body extending in an axial direction thereof downwardly from said head;

said elongated body comprising, in said axial direction, a first enlarged portion connected to an underside of said head via a first neck portion, and a second enlarged portion connected to said first enlarged portion via a second neck portion, whereby sheet materials having openings can be accommodated around said neck portions between said first enlarged portion and said head and between said first and second enlarged portions;

each of said enlarged portions being rigidly formed with said elongated body so as to not be radially deformable relative thereto and having a maximum dimension and a minimum dimension respectively in first and second radial directions perpendicular to said axial direction;

wherein the dimensions of said enlarged portions in said first and second radial directions are not greater than respective dimensions of said head in said first and second radial directions;

wherein each of said enlarged portions has the maximum dimension and the minimum dimension respectively in the same first and second radial directions which are perpendicular to each other; and

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~~The fastener of claim 21,~~ wherein said head comprises  
a transverse wall having a central region to which said elongated body is connected; and  
a collar extending downwardly from a periphery of said transverse wall and obliquely, away  
from said central region of said transverse wall;

wherein said collar comprises two cut-outs which define therebetween an axially movable  
locking tooth.

23. (canceled)

24. (canceled)

25. (currently amended) In combination,

first and second sheet members each being formed with an opening having a ~~greater~~  
maximum dimension and a ~~smaller~~ minimum dimension respectively in first and second radial  
directions perpendicular to an axial direction of said opening, the openings of said first and second  
sheet members being aligned with each other; and

a fastener comprising a head and an elongated body extending, in the axial direction of said  
openings, from said head through said openings;

wherein

said elongated body comprises, in said axial direction, a first enlarged portion connected to  
an underside of said head via a first neck portion and a second enlarged portion connected to said  
first enlarged portion via a second neck portion;

said first sheet member is disposed between said first enlarged portion and said head with  
said first neck portion located in the opening of said first sheet member;

said second sheet member is disposed between said first and second enlarged portions with  
said second neck portion located in the opening of said second sheet member;

each of said enlarged portions is rigidly formed with said elongated body so as to not be  
radially deformable relative thereto and has a greater maximum dimension and a smaller minimum  
dimension respectively in the second and first radial directions perpendicular to said axial direction;

the dimensions of said enlarged portions in said first and second radial directions are not  
greater than respective dimensions of said head in said first and second radial directions;

each of said enlarged portions has the maximum dimension and the minimum dimension  
respectively in the same second and first radial directions which are perpendicular to each other;

the ~~greater~~ maximum dimension of said second enlarged portion is smaller than the ~~greater~~ maximum dimensions of said first and second openings and is greater than the ~~smaller~~ minimum dimension of said second opening, thereby allowing said second enlarged portion to be aligned with and pass through the openings and then to be locked against withdrawal after rotation of said fastener a predetermined angle about said axial direction; [[and]]

the ~~greater~~ maximum dimension of said first enlarged portion is smaller than the ~~greater~~ maximum dimension of said first opening and is greater than the ~~smaller~~ minimum dimension of said first opening, thereby allowing said first enlarged portion to be aligned with and pass through the first opening and then to be locked against withdrawal after rotation of said fastener the predetermined angle about said axial direction; and

in the whole elongated body, said second neck portion has smallest dimensions in both said first and second radial directions, thereby defining a weakest point of said elongated body which will be first ruptured upon application of sufficient stress to said elongated body.

26. (previously presented) In the combination of claim 25, wherein said head comprises a collar which has an axially moveable locking element partially received in the first opening to lock against further rotation of said fastener about said axial axis.

### *Reasons for Allowance*

[5] The following is an examiner's statement of reasons for allowance: the prior art, including the most relevant art of Rutsche et al., Ichikawa, Yuda, and Joannou, either alone or in combination with corresponding limitations as stated above, fails to teach or disclose that of the above claims. First, with regard to independent claim 18, the instant claim is allowable over the prior art, and more specifically the most relevant of Rutsche et al. because first, Rutsche et al. fails to disclose that each of said enlarged portions has a maximum dimension and a minimum dimension respectively in the same first and second radial directions which are perpendicular to each other. Rutsche et al. also fails to disclose of a first neck portion having a cylindrical

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perimeter. Instead, Rutsche et al., discloses a first neck portion that incorporates a non-cylindrical portion, via the lug 20. Independent claims 21, 22, and 25 are also allowable over Rutsche et al. for the former reason above as well as in Claim 22, Rutsche et al. does not disclose collar comprises two cut-outs, which define therebetween an axially movable locking tooth. Rutsche et al. instead teaches of lugs, 20, which provide for helping lock the fastener in place. Therefore, there is no motivation to incorporate a locking tooth since Rutsche et al. already discloses different structural means to accomplish such a function. Lastly, with regard to claim 21, Rutsche et al. does not disclose of a second neck portion that defines a weakest point of said elongated body which will be first ruptured upon application of sufficient stress to said elongated body.

With respect to the other relevant art; Ichikawa, Yuda, and Joannou, do not disclose of enlarged portions being rigidly formed with said elongated body so as to not be radially deformable relative thereto. They all teach of the opposite, that is, that at least one of the enlarged portions is radially deformable relative and deform as such when the fastener is utilized.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee, and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."



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*Conclusion*

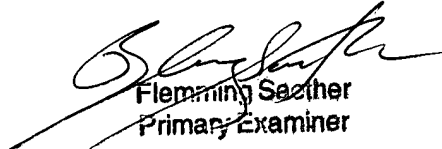
[6] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is 571-272-7082. The examiner can normally be reached on 7:30 am - 6:00 pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached at (571) 272-7075. **Please also note the change in the fax phone number to (571) 273-8300 for the organization where this application or proceeding is assigned.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sincerely,  
David Reese  
Assistant Examiner  
Art Unit 3677

DCR

  
Flemming Sæther  
Primary Examiner